



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,247	06/19/2006	Matthias Baca	2003PO3602WOUS	2438
7590 07/09/2008				
Siemens Corporation Intellectual Property Department 170 Wood Avenue South Iselin, NJ 08830				
EXAMINER				
NATALINI, JEFF WILLIAM				
ART UNIT		PAPER NUMBER		
2831				
MAIL DATE		DELIVERY MODE		
07/09/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/549,247

**Applicant(s)**

BACA ET AL.

**Examiner**

JEFF NATALINI

**Art Unit**

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 April 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 14, 16-21 and 23-26 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 14, 16-21 and 23-26 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 04 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

**10549247DETAILED ACTION**

***Specification***

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it contains legal phraseology (e.g. "comprising", "said"). Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 103***

Art Unit: 2831

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14, 16-21, and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamer ("Acceptance Testing of Electrical Motors and Generators", cited in the IDS) in view of Twerdochlib (US Patent 4827487).

In regard to claims 14, 18, 21, 25, and 26, Hamer discloses

(claims 14, 21, and 26) a method/ apparatus for testing faults in a laminated core of a generator (page 1291-page 1 of the article- "Stator Core Test"), a field winding which lies in parallel with an axis of rotation of the generator (figure 1 test supply VM and winding AM lie in parallel with the rotation of the generator) and is connected to a device that produces alternating current (figure 1 VM; last paragraph of column 1 page 1291), an infrared image detection and record device which is designed to detect infrared radiation for inspecting hot spots in the generator (last paragraph of column 2 page 1 under the heading "Stator Core Test"), wherein a frequency makes available a power in a single phase form (last paragraph of column 1 page 1291; see also equation 1) at an output voltage that can be regulated (see equation 1 and the variable elements that make up the test supply voltage).

Hamer lacks specifically disclosing

(claims 14, 21, and 26) wherein the testing device comprises a frequency converter for converting the fundamental frequency to a frequency that is greater than

50 Hz to energize the filed winding and cause a thermal response indicative of at least one hot spot in the laminated core and

(claims 18 and 25) wherein the frequency is made available at a frequency above 400 Hz.

Twerdochlib discloses a temperature sensing system for stator windings, wherein the temperature is monitored along the coil sections (abstract) and uses an infrared optical device for detecting infrared radiation (col 8 line 62- col 9 line 10), wherein in the high voltage testing device (col 2 lines 2-7) has a converter for converting a fundamental frequency to a frequency that is greater than 50 Hz and further greater than 400 Hz to energize the field winding and cause a thermal response indicative of at least one hot spot in the laminated core (the fundamental frequency of a motor/generator-col 1 line 5-9- in the United States is known to be 60Hz, a generator increases/converts this frequency to 50 kHz to monitor the hot spot in the coils (col 6 line 64 - col 7 line 11); also see frequency shifts/conversions in the optical fiber for indication of the local heating/hot spots (col 9 line 15-23) which also read on the claim language of converting a frequency to higher than 50Hz/400Hz)

It would have been obvious to one with ordinary skill in the art at the time the invention was made for Hamer to include the teaching of Twerdochlib and use frequency conversion in order to monitor the temperature along the coils (abstract). In adding the teaching of Twerdochlib et al. to Hamer, and having a value for frequency in equation 1 of Hamer, the voltage applied would be well over 400 volts/turn (Twerdochlib

discloses in detecting temperature deviations, a high voltage compatibility is needed-col  
2 lines 2-7).

In regard to claims 16, 17, 23, and 24, Hamer discloses wherein the high speed testing device has an input side which can be connected to a three phase power supply at 400 V (figure 1 at least test supply VM has an input that would be able to be connected to a 400 V three phase power supply).

In regard to claim 19, Hamer discloses wherein the field winding comprises at least two lines (figure 1, VM; connected to ground line and power line).

In regard to claim 20, Hamer discloses wherein the testing device is in the form of a transportable device (the device is connected to the core and is able to be disconnected and transported to a desirable location).

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 14, 16-21, and 23-26 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFF NATALINI whose telephone number is (571)272-2266. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2831

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vincent Q. Nguyen/  
Primary Examiner, Art Unit 2831

/Jeff Natalini/  
Examiner, Art Unit 2831